

Protecting Health and the Environment On and Off Campus

To raise awareness among campus administrators, during the past year, the U.S. Environmental Protection Agency and many state environmental agencies have been inspecting colleges and universities to see how they are faring. Some have their work cut out for them.

- The **University of Georgia** faces a \$2.62 million cleanup of hazardous waste in a landfill that polluted groundwater.
- **Penn State** must spend more than \$1 million to clean up a well that was contaminated with fire-fighting chemicals used during a campus training program.
- **Lincoln University** was fined more than \$50,000 for improperly managing oil tanks on campus.
- **West Virginia University** faces a \$15 million cleanup of asbestos in its basketball arena and will lose its home game schedule for an entire season.
- The **University of New Hampshire** may face a penalty of over \$300,000 for hazardous waste violations.

These schools are paying a stiff price to protect their campus family and environment. But, rather than penalize educational institutions, the EPA prefers to work with administrators to bring them up to speed on the requirements.

What specific environmental regulations apply to colleges and universities? It depends on the state where the school is located. Each state has its own set of environmental regulations, but generally, state regulations coincide with federal. It depends on what activities take place on campus. Does the school have a wastewater treatment plant? Does it dispose of hazardous waste? Does it operate an incinerator?

The following is a general checklist of the environmental compliance issues that EPA inspectors cover when they visit colleges and universities. However, keep in mind that this list provides only an overview. An environmental professional is best qualified to oversee compliance issues. He or she should also be knowledgeable about your state's specific requirements, especially in areas that are not covered by federal law, such as solid waste (trash) disposal and recycling.

- **Oil storage tanks** -- Most schools are likely to have underground or above-ground storage tanks with very large capacities to store heating oil and/or gasoline to

fuel campus vehicles. Underground storage tank leaks are one of the major culprits in groundwater contamination, which in turn, can impact the drinking water if the school uses well water. Tanks must meet current standards, such as leak detection, spill and overflow protection and secondary containment, and they must be registered with the appropriate state agency. In addition to meeting tank standards, schools must keep on file a certified, up-to-date oil spill prevention plan

- **Hazardous waste** -- Schools generate hazardous waste in many of their buildings and must hire a transporter to properly dispose of it. The science and engineering departments on most college campuses generate large quantities of solvent wastes, especially at the end of each school year. Those departments should have systems in place for proper identification, safe storage and timely disposal of these wastes. EPA inspectors have observed a number of students improperly disposing of hazardous wastes by washing them down a nearby sink or drain. This is a violation and can result in a substantial penalty.
- **Air protection** -- If schools have smokestacks on campus for boilers or incinerators, they need to be sure that the air emissions meet state permit limits. If the facility has pollution control equipment, it must be operating properly. If the school is doing any renovations involving asbestos or lead paint removal, the project must be done by the book using a certified contractor. Repairs on air conditioners or refrigerators must be done by a certified technician to restrict the amount of refrigerants released into the atmosphere. Refrigerants destroy the Earth's protective ozone layer.
- **Water protection** -- Certain schools might be so large that they have their own wastewater treatment plant on campus to handle sewage. These plants require permits from the state, and their discharges must meet permit limits. The wastewater treatment sludge must be disposed of properly, as well. If the school has its own drinking water supplies either from a drinking water plant or from a groundwater well, it must be sampled regularly for contaminants. If the school is on the public water supply, then it is the water supplier's responsibility to do the sampling.
- **Pesticide use/storage** -- Schools that have agricultural programs often run teaching farms that use and store pesticides. They must be applied and stored according to the label's instructions. In rare cases, a school might manufacture a pesticide, and in that

case, it must be registered with the EPA.

- **Community right-to-know** -- The EPA requires that facilities using or storing toxic chemicals over threshold quantities must report them to state and local emergency planning agencies. This reporting is important in case of a fire, explosion or chemical leak. Also, if the facility releases into the environment, air, water or land, chemicals above a certain amount, those must be reported to the EPA for inclusion in the agency's Toxic Release Inventory. Both these requirements satisfy the community's right to know what chemicals are in their neighborhoods.
- **Wetlands** -- These marshy areas that filter contaminants and prevent flooding are federally protected and cannot be altered or filled without a federal permit. So, if campus construction plans call for a new building, annex, athletic field, or any other activity that would disturb wetlands, a special permit from the Army Corps of Engineers is necessary.

Under EPA's innovative audit policy, schools that come forward to report their violations can reduce, and in some cases, eliminate penalties as long as 1) the violations cause no direct harm to public health or the environment; 2) they are corrected immediately; and 3) the school has an overall good track record. The audit policy was developed as an incentive to do self-audits for compliance with all environmental laws.

Or, a school that has already been cited by the EPA, it may offset penalties with environmental projects which benefit the community. Several universities have already taken advantage of this policy.

Boston University reached a settlement with the EPA in 1997 to invest \$500,000 in local environmental projects and conduct a campus-wide environmental audit. BU also paid a \$253,000 cash fine for a leaking underground storage tank that polluted the Charles River. The **University of the District of Columbia** agreed in 1998 to perform testing in a local creek instead of paying a penalty for a Clean Water Act violation.

In addition to mandatory environmental compliance, the EPA encourages schools to adopt voluntary programs to conserve resources and reduce pollution. These programs not only preserve and protect the environment, they also save huge sums of money in the long run.

The EPA has 20 separate volunteer opportunities, collaborating with more than 7,000 businesses and institutions nationwide. Volunteer partners have succeeded in conserving water and energy, reducing greenhouse gases, toxic emissions, solid and hazardous waste, indoor air pollution and pesticide risk.

A popular program is EPA's **Energy Star Buildings** that protects the environment and saves money through energy efficiency. It helps to reduce carbon dioxide, nitrogen oxide, sulfur dioxide and small soot particles that contribute to smog and acid rain. Institutions can reduce the cost of running their buildings by 30 percent.

Delaware State University upgraded its cooling, heating and lighting systems at an annual energy cost savings of more than \$648,000 per year, and reduced carbon dioxide output by 3.2 million pounds per year. The **University of Cincinnati** upgraded its lighting in classrooms, lecture halls and offices, and now saves more than \$1.3 million in energy costs per year. This reduced carbon dioxide equal to removing 6,800 cars from the road.

Another very effective pollution prevention tool is EPA's **WasteWise**, a voluntary program which helps organizations eliminate costly trash disposal, benefitting their bottom line and the environment. WasteWise is flexible, allowing partners to design their own trash reduction programs tailored to their needs.

Participants range from small local governments and non-profit organizations to large, multi-national corporations and universities. From the program's inception in 1994 through 1998, waste reduction has increased from about a million tons per year to just under eight million tons per year. To date, 51 institutions of higher learning have become WasteWise partners. One partner, **Eastern Illinois University**, cut disposal costs by composting 189,000 pounds of yard and tree trimmings to use as mulch in flower and shrub beds.

As government regulators begin to focus more closely on compliance, so too, must colleges and universities take stock of their environmental contribution -- whether it be to correct violations before they cause a health risk, or to go many steps further by participating in one of EPA's voluntary programs.

Colleges and universities are entrusted with the education, as well as the safety of their students. Many have curricula that teach about the environment daily in classrooms. Institutions of higher education have a great opportunity and responsibility to serve as environmental role models to their student bodies and their communities.

For more information on volunteer programs, visit EPA's website at www.epa.gov/partners.

To self disclose environmental violations on your campus, call your regional EPA self-disclosure coordinator:

Region II (NJ, NY, PR, VI) John Wilk (212) 637-3918